South East ORTHOPAEDIC SURGERY

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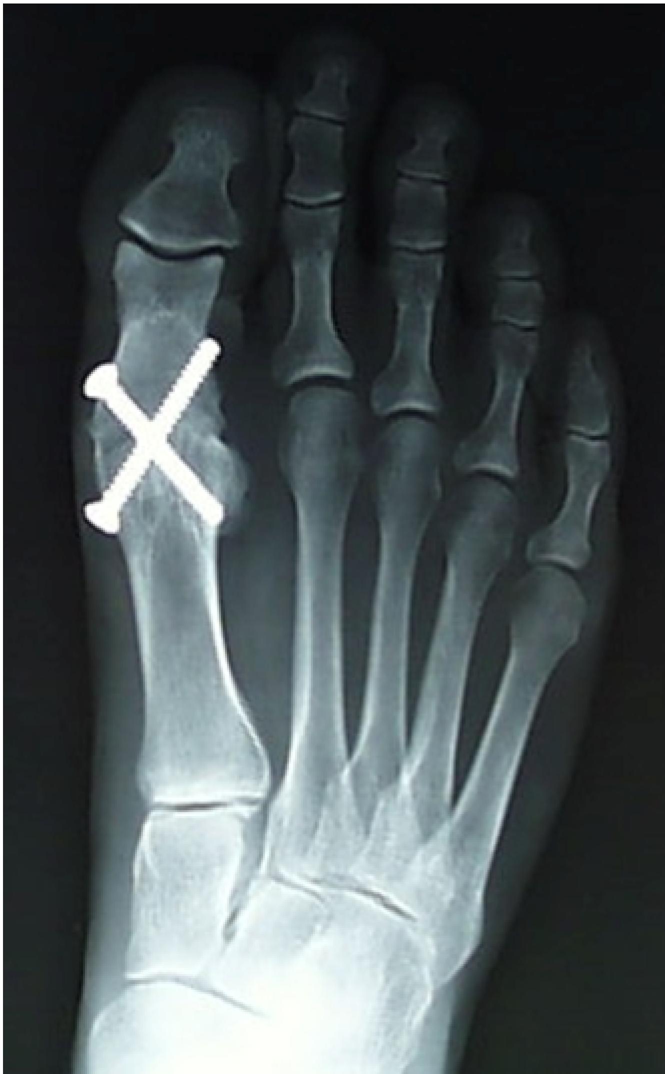
Hallux rigidus (big toe arthritis) surgery

You are considering big toe surgery because you have exhausted non-operative management options for management of your big toe arthritis. Non-operative management options include seeing a podiatrist, trying a brace or orthotics, changing shoes, modifying your activities, taking anti-inflammatory or analgesic medication or possibly an injection of local anaesthetic and steroid into the big toe joint.

The surgical treatment suggested is an arthodesis, or fusing the bones that make up the big toe joint. Any osteophyte (or bumps around the big toe, most commonly on the top of the foot) will also be removed. A cut is made on the side of the toe, and the remaining cartilage, loose bone and hard bone surfaces are removed. The bones are then compressed with a very slight bend to the toe (as this is biomechanically the recommended position of fusion) and the bones are held and compressed with either two screws or a plate construct, depending on your anatomy. This decision is normally made intra-operatively. The joint capsule is then tightened prior to closing the skin with stitches.



Generally, the surgery is well tolerated and more than 90% of patients who undergo this procedure are satisfied with their foot six months post-operatively. However, there are risks.

The risks associated with the surgery include:

Infection

This can range from a superficial wound infection (which is quite common) to a severe infection that may require multiple surgeries to washout out the bacteria and potentially need to remove the metal. In the setting of infection, you may also require antibiotics which can range from a five day course of tablets (most common) to a six week, or longer, period of intravenous antibiotics. This severe infection is very rare. There is a very, very small chance that should the infection not be able to be controlled with surgery and/or antibiotics you may require an amputation, although this is highly unusual.

Fracture

If you have a fall, or even a simple stumble, you can fracture around where the cuts of the bone are made to fuse the big toe. This may require further surgery to fix the fracture, which can be difficult.

Pain

Any foot surgery can be painful. You will be given analgesia by your anaesthetist and you are encouraged to ask for more pain relief if you feel this is not adequate. Your foot can be sore for up to three months, or rarely longer. Very rarely, patients can have ongoing, non-specified soft tissue pain despite normal investigations and a good fusion, alignment of the toe and position of the metalware.

Swelling

Your foot can swell for many months and you may initially have difficulty finding shoes that fit due to the swelling, even with the bumps removed. Swelling is normal and can take six months to dissipate, especially if you return to work or spend a lot of time on your feet.

Numbness or nerve irritation

There are several tiny nerves that are in the area of the surgery. Occasionally these can be damaged resulting in numbness or uncomfortable tingling around the scar or in the big toe itself. This usually resolves within a few months, but very rarely can be permanent.

Non-union

Taking away the cartilage, and encouraging the bones to heal, requires compression and stability, good blood supply and appropriate post-operative rehabilitation. In approximately 5% of cases, the fusion 'doesn't take' and the big toe remains as two separate bones. The chance of this occurring is up to five times higher if you are a smoker. It is strongly advised you stop smoking before your surgery. If the bones do not unite, sometimes revision surgery is required which generally requires a bone graft and fixation with a plate.

Prominent metalware

Sometimes the screws and/or plate used to fuse the toe are prominent, especially in a small thin feet. The metalware can be removed once bony union has occurred – usually after six to twelve months.

Transfer arthritis

In some cases, particularly if the fusion is performed at a young age, the joints near the big toe (interphalangeal joint and tarso-metatarsal joints) can become arthritic as they compensate for the lack of movement. These can also be treated with a fusion if required, but you can notice more stiffness in the foot.

Shortening

The big toe needs to be shortened by a few millimetres to allow compression and bone healing. In some cases, the toe may be shortened before the operation due to bone loss and may be noticeabley shortened following the procedure. In some cases, this can cause metatarsalgia (or pain underneath the foot) as the lesser toes compensate. This can usually be managed with orthotics but very occasionally needs revising with a lengthening procedure.

Blood clots

You are encouraged to heel weight bear following surgery which does help minimise, but not completely avoid, the risk of blood clots. It is generally advised to avoid blood-thinning medication if possible as they have not been shown to prevent fatal pulmonary embolus (blood clot to the lungs) in elective foot surgery, and blood thinning medication can cause wound problems resulting in infection. If you have extra risk factors such as a previous history of blood clots, a clotting disorder such as Factor V Leiden, have a history of cancer or chemotherapy treatment or are on the oral contraceptive pill, you need to let your doctor know. You are at risk of developing a blood clot to the veins in the leg or lungs. Very, very rarely this clot can cause problems with breathing or even more rarely, death. If you do develop a clot, you may require blood-thinning medication which also has side effects such as causing unwanted bleeding to the brain, gastro-intestinal tract or kidneys.

Complex regional pain syndrome (CRPS)

This is a relatively common condition which is poorly understood. In approximately 5% of people, the nerves to the foot become hypersensitive resulting in extreme sensitivity to hot and cold, a burning or tingling sensation, discolouration to the foot and/or abnormal swelling. CRPS can also be associated with pre-surgery mental health conditions such as anxiety and depression, and is much higher in patients who have an active workers compensation claim. If you may have developed CRPS, you may be referred to a specialist physiotherapist or podiatrist, sports physician or pain physician for further management. This can include densensitisation exercises, cognitive behavioural therapy or medication.

Please ask your surgeon prior to your surgery if you have any questions or need any clarification with the information provided to you today.

I have read and understood the material risks for this procedure. I have been given an opportunity to ask questions and clarify any of the information provided. I am aware of the risks of surgery and am aware of the non-operative management options available.

Signature Name Date